

## SOFARSOLAR Battery System Products Limited Warranty

Applicable territory: **Europe (outside Germany, Austria, Switzerland)**  
 Battery System Products: GTX 2500 / GTX 5000 / GTX 5000-PRO / BTS 5K/BTS 5K-BDU / GTX 3000-H4 / GTX 3000-H5 / GTX 3000-H6 / GTX 3000-H7 / GTX 3000-H8 / GTX 3000-H9 / GTX 3000-H10 with GTX 3000-BCU Lithium-ion energy storage

This limited warranty (hereinafter referred to as "Warranty") applies to GTX/BTS Lithium-Ion batteries (hereinafter referred to as "Products") supplied by Shenzhen SofarSolar Co. Ltd. through an authorized reseller.

### 1. Purpose

The main purpose of this guarantee is to clearly define the issues regarding the warranty policy of the products.

### 2. Limited Warranty

#### a. Limited Product Warranty

SofarSolar warrants that the Product (including BDU, BCU, Power Module) will be free from defects caused by improper workmanship or defective materials for ten (10) years from Warranty Start Date.

#### b. Limited Performance Warranty

SofarSolar warrants that the battery product will maintain either seventy percent (70%) of the Usable Energy for ten (10) years or a Minimum Throughput Energy calculated from the start date of the warranty, whichever occurs first.

The Usable Energy and Minimum Throughput Energy for each Product Model are set out in the table below:

Product Model	*Usable Energy (kWh)	*Minimum Throughput Energy (MWh)
GTX 2500	2.25	6.7
GTX 5000	4.50	13.5
GTX 5000-PRO	4.60	13.1
GTX 3000-H4	9.00	28.3
GTX 3000-H5	11.25	35.5
GTX 3000-H6	13.50	42.6
GTX 3000-H7	15.75	49.6
GTX 3000-H8	18.00	55.5
GTX 3000-H9	20.25	62.5
GTX 3000-H10	22.50	69.5
BTS 5K	4.60	13.1

\*The conditions for capacity measurement are defined in Appendix 1, Appendix 2.

\*Minimum Throughput Energy values may vary with geographic ambient temperature. The operation and service life of battery are related to the working temperature. The recommended working temperature for battery is 15-30°C.

The above defined guaranteed condition also applies to battery modules which are bought at a later time.

#### **c. Warranty Start Date**

- i) the date of purchase, end user needs to provide a valid purchasing invoice to verify the date of purchase.
- ii) 3 months after the date of production (defined in the Serial number of the product) for circumstances where end user fails to provide a valid purchasing invoice.

### **3. Scope of Warranty**

If the product cannot meet the defined Warranty criteria during the warranty period and is claimed, Shenzhen SofarSolar Co. Ltd will be free to repair or replace the affected battery module with a refurbished or new product. If the same product is not available anymore on the market, SofarSolar Co. Ltd. can, at its own discretion, replace it with a similar product with comparable functions.

SofarSolar may instead of product replacement offer financial compensation according to one of the below methods:

- a. Refund = purchase price x (Minimum Throughput Energy – actual Throughput Energy) / Minimum Throughput Energy
- b. Refund = purchase price x (warranted Usable Energy – actual Usable Energy) / warranted Usable Energy

In the case of product defect, SofarSolar can refund on the buyers request the time value according to the calculation: Refund = purchase price / 120 x remaining months of warranty.

Purchase price is the end customers purchase price of the affected single battery module, decreased by subsidies or tax benefits.

### **4. Warranty Conditions**

The warranty relating to the product only apply if the product:

- a. purchased from SofarSolar or an authorised reseller in the territory;
- b. has an official SofarSolar serial number;
- c. was installed in applicable ventilated territory, and shall not be exposed in an installed area to direct sunlight, the ambient temperature shall not fall below -10°C or exceed 50°C.
- d. is installed, operated and maintained in accordance with the product instructions;
- e. is used on a daily cycle basis and used only for energy storage system.
- f. The battery system shall be installed with SOFARSOLAR brand inverter. If you want to use any other brand inverter, please check with SOFARSOLAR to make sure it's compatible in advance.

The warranty is not applicable if the defect or failure of performance of the product is due to misuse, abuse, accident or lack of maintenance of the product.

This warranty does not apply to accessories and tool kits supplied with the products.

## 5. Exclusion of warranty

To the extent permitted by law, SofarSolar excludes all liability for the product to the extent that any damage or defect is caused or contributed to by the following:

- a. The warranty period stated above has already expired.
- b. If there is an inverter or charger failure (SofarSolar energy storage inverters excluded).
- c. If the product is installed with inverters or chargers that are not certified by SofarSolar.
- d. If the product is used improperly, negligently or in any other inappropriate manner, including use of the product outside the recommended ambient temperature as specified in the product instructions.
- e. If there is transportation damage, including but not limited to dropping, deformation, impact or damage with a sharp object.
- f. In case of storage, installation, commissioning, modification or repair of the product carried out by a person other than SofarSolar or an installer certified by SofarSolar.
- g. Misuse, abuse, negligence, accidents or force majeure events, including but not limited to lightning, flood, fire, extreme cold or other events beyond SofarSolar's reasonable control.
- h. Any attempt to extend or shorten the life of the product without written confirmation from SofarSolar, whether by physical means, programming or otherwise.
- i. Removal and reinstallation in a different location than the original installation without the written confirmation of SofarSolar.
- j. The product comes into contact with water, conductive dust or corrosive gas.
- k. If different types of batteries have been connected together.
- l. If product damage and defects resulting from improper use, misuse or abuse not in accordance with those in the user manual.
- m. In the event of normal wear and tear or deterioration in performance, or due to superficial defects, dents or stains that affect the performance of the product.
- n. Theft or vandalism of the product or any of its components.
- o. If the end user does not provide the correct product serial number or the product serial number is indecipherable, or it has been changed without SofarSolar's permission.
- p. The Product is not suitable for supplying life-sustaining medical devices and automotive application.
- q. Product damage caused by force majeure, acts of God (causes of natural disasters such as unforeseeable, unavoidable and insurmountable objective events, including but not limited to war, civil war, strike, riots or other activities intervened by the government, terrorism, war, riots, strikes, unavailability of suitable and sufficient labour or materials and other events beyond the control of SofarSolar) or other third parties.
- r. The Products not being operated for any period of 6 months or more.

## 6. Warranty Claim Process

Claims can be made by the authorized reseller from whom the product was purchased. To process warranty claims, the following points must be observed:

- a. Invoice for the procurement of the product
- b. Serial number of the product and date of first installation
- c. Specify the log data recorded by the products to indicate whether the Minimum Throughput Energy was reached

Shenzhen SofarSolar Co. Ltd. may contact the buyer for further information regarding the defect.

Shenzhen SofarSolar Co. Ltd. may require the purchaser to conduct a failure analysis of the product to provide evidence for the claim. The final verification of the claim will be done by Shenzhen SofarSolar Co. Ltd.

Shenzhen SofarSolar Co. Ltd. reserves the right to reject exchange requests if sufficient information is not provided.

To request the replacement of an energy storage unit, you must contact Shenzhen SofarSolar Co. Ltd. service center (E-mail: [Service@sofarsolar.com](mailto:Service@sofarsolar.com)) or one of its subsidiary companies (see contact info at the end of the document)

If you dispute SofarSolar's verification of the claim, the product must be evaluated by an EU government certified testing laboratory or a certified third party testing company. You will bear the cost of the third party assessment unless your claim proves to be valid, in which case SofarSolar will bear the cost of the assessment.

If the product is no longer available, SofarSolar may, at its sole discretion, replace the product with a refurbished product or another product or parts with equivalent features and performance according to the latest available technical information. The replacement battery, components or products may not be brand new, but of a quality and specification that meets the product specifications.

## 7. General Provisions

This warranty is governed by the law of the EU. If any provision in this document is unenforceable, illegal or void, or renders this document or any part of it unenforceable, illegal or void, then that provision shall be deleted and the remainder of this document shall continue in force.

If any provision in this document is enforceable, illegal or void in one jurisdiction but not in another jurisdiction or renders this document or any part of it unenforceable, illegal or void in one jurisdiction but not in another jurisdiction, that provision shall be deleted only in relation to the effect of this document in the jurisdiction in which it is unenforceable, illegal or void.

## 8. Definitions

**Authorized Reseller** means an approved SofarSolar retailer or distributor in the Territory.

**Consumer law** means EU consumer law.

**Rated Energy** means the initial rated capacity of the product as printed on the product

label.

**Usable Energy** means the energy that can be output continuously and is related to the rated energy and depth of discharge.

**Minimum Throughput Energy** means the total output energy of the Product recorded in the control module of the Product.

**Products** means the AMASS GTX/BTS series batteries manufactured by SofarSolar.

**Product Instructions** means the instructions and manuals issued by SofarSolar with the Product describing how to install and operate the Product.

**SofarSolar** means Shenzhen SofarSolar Co. Ltd.

## 9. Applicable Law

This warranty is governed by EU law. Products come with guarantees that cannot be excluded under EU consumer law. The buyer has the right to compensation for a material defect for any

other reasonably foreseeable damage. The buyer also has the right to repair or replacement if the products are not of acceptable quality and the defect is not a substantial defect but affects the normal use of the product. The benefits provided by the warranty are in addition to any other rights and remedies available to the consumer under any law relating to the goods or services to which the warranty relates.

The Conditions are limited to Shenzhen SofarSolar Co. Ltd.

## 10. Contact

### Global

Shenzhen SOFARSOLAR Co.Ltd.  
11th Floor, Gaoxinqi Technology Building,  
District 67, Xingdong Community, Xin'an  
Street, Bao'an District, Shenzhen, China

Email: [info@sofarsolar.com](mailto:info@sofarsolar.com)

Web: [www.sofarsolar.com](http://www.sofarsolar.com)

### Europe

SofarSolar GmbH  
Krämerstr. 20  
72764 Reutlingen  
Germany

Email: [service.de@sofarsolar.com](mailto:service.de@sofarsolar.com)

Web: [www.sofarsolar.eu](http://www.sofarsolar.eu)

## **Appendix 1: Conditions for Capacity measurement of GTX 2500 / GTX 5000 / GTX 5000-PRO / BTS 5K**

The test is based on single GTX/BTS series battery module.

The ambient temperature of the Product must be  $25^{\circ}\text{C}\pm 2^{\circ}\text{C}$

The initial temperature of the battery pods must be  $25^{\circ}\text{C}\pm 1^{\circ}\text{C}$

### **GTX 2500**

- a. Constant current (10A) discharge, until battery to low voltage protection (45.6V) or until the cell voltage less than 2.85V.
- b. Lay aside the battery for 30mins.
- c. Constant voltage (56.16V) constant current (10A) charge, until all cell voltages are above 3.50Vdc or until the charge current less than 1A.
- d. Lay aside the battery for 30mins.
- e. Constant current (10A) discharge, until battery to low voltage protection (45.6V) or until the cell voltage less than 2.85V.
- f. Calculate the discharged capacity. Monitor the current promptly. (If it is constant current). The calculation formula is: Current capacity = discharge time  $\times$  constant current value.
- g. Charge the battery with constant current and constant charging voltage until the battery automatically protects itself.

### **GTX 5000 / GTX 5000-PRO / BTS 5K**

- a. Constant current (20A) discharge, until battery to low voltage protection (45.6V) or until the cell voltage less than 2.85V.
- b. Lay aside the battery for 30mins.
- c. Constant voltage (56.16V) constant current (20A) charge, until all cell voltages are above 3.50Vdc or until the charge current less than 1A.
- d. Lay aside the battery for 30mins.
- e. Constant current (20A) discharge, until battery to low voltage protection (45.6V) or until the cell voltage less than 2.85V.
- f. Calculate the discharged capacity. Monitor the current promptly. (If it is constant current). The calculation formula is: Current capacity = discharge time  $\times$  constant current value.
- g. Charge the battery with constant current and constant charging voltage until the battery automatically protects itself.

**Appendix 2: Condition for capacity measurement of GTX 3000-H**

Ambient temperature: 25 ~ 28°C

**Charge / discharge method**

- a. Discharge the battery with constant current until the end-of-discharge voltage is reached or the battery self-protects automatically.
- b. Lay aside the battery for 30 minutes.
- c. Charge the battery with constant current and constant charging voltage according to below table until the battery automatically protects itself.
- d. Lay aside the battery for 30 minutes.
- e. Discharge the battery with constant current until the end-of-discharge voltage is reached or the battery self-protects automatically.
- f. Calculate the discharged capacity. Monitor the current promptly. (If it is constant current). The calculation formula is: Current capacity = discharge time × constant current value.
- g. Charge the battery with constant current and constant charging voltage until the battery automatically protects itself.

**Test parameters**

<b>Product type</b>	<b>End-of-Discharge voltage (V)</b>	<b>Constant charging voltage (V)</b>	<b>Constant current (A)</b>
GTX 3000-H4	182	225	10
GTX 3000-H5	228	281	10
GTX 3000-H6	274	337	10
GTX 3000-H7	319	393	10
GTX 3000-H8	365	449	10
GTX 3000-H9	410	505	10
GTX 3000-H10	456	562	10